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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,506	02/04/2004	Yoshihiko Iijima	248528US0	1755
22850	7590	06/20/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGUYEN, SON T	
			ART UNIT	PAPER NUMBER
			3643	

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/770,506	<b>Applicant(s)</b> IIJIMA ET AL.	
	<b>Examiner</b> Son T. Nguyen	<b>Art Unit</b> 3643	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 18 and 23-50 is/are pending in the application.
- 4a) Of the above claim(s) 41-46 and 48-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18, 23-40 and 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**SON T. NGUYEN**  
**PRIMARY EXAMINER**

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Newly submitted claims 41-46,48-50 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Regarding claims 41,48-50 include a solid carrier which was not claimed originally as elected by Applicant of group I, claims 1-13. The original claims 1-13 pertain to a liquid carrier and not a solid carrier, which are two different elements. The Examiner inadvertently left out an explanation in the Office Action dated 3/24/06 regarding reasons for withdrawing claims 18-46 as filed on 3/13/06. The claims 18-46 filed on 3/13/06 contain the solid carrier, which, again, was not originally presented. Applicant traverses that the original claim 1 is directed to any plant growth regulator composition containing cinnamic acid and does not exclude either liquid or solid compositions. It is true that claim 1 is broad, however, the dependent claims, as elected, do specifically state a liquid carrier and not a solid carrier. Therefore, that is why the new claims with a solid carrier is not originally presented. Applicant also traverses that dispersants are explicitly claimed in the original claims, such as in claim 3, and therefore clearly fall within the previously elected subject matter. The Examiner agrees with Applicant, thus, will considered the new claim 25 which calls for the dispersants. However, note that claim 18 as submitted on 3/13/06 does not just claim the liquid carrier and the dispersant, the claim calls for a solid or liquid carrier with the dispersant. Therefore, that is why the Examiner believes that the combination of the solid carrier and dispersant is not of originally presented or elected.

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Regarding claims 42,43-46, the limitation of these claims are similar to the original claims 14-17, which were restricted, hence, these claims are not considered due to the claims being of non-elected group.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, **claims 41-46,48-50** have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 18,23-26,28,47** are rejected under 35 U.S.C. 102(b) as being anticipated by Ferguson et al. (US 3157964).

For claim 18, Ferguson et al. teach a composition comprising cinnamic acid (col. 3, line 25); an aqueous medium (col. 1, line 72, col. 7, line 66 and throughout patent), wherein said composition contains an amount of cinnamic acid sufficient to regulate plant growth (the concentration as described by Ferguson throughout his patent for the cinnamic acid is sufficient to regulate growth by supplying enough moisture, resistance to bacteria, etc. as listed in col. 1, lines 10-14,59-69).

For claim 23, Ferguson et al. teach water (col. 7, line 66).

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For claim 24, Ferguson et al. teach the aqueous medium comprises water (col. 7, line 66) and an organic solvent such as alcohol (col. 6, line 64).

For claims 25-26, Ferguson et al. teach carboxymethylcellulose as a dispersant in the composition (col. 4, line 70).

For claim 28, Ferguson et al. teach a polymer as a dispersant (col. 2, under "The Polymeric Constituent").

For claim 47, Ferguson et al. teach a plant growth regulator comprising cinnamic acid (col. 3, line 25).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson et al. as applied to claims 18,25 above, and further in view of Pierzynski et al. (6383128).

Ferguson is silent about employing a condensed phosphate as the preferred dispersant. Pierzynski et al. teach a condensed phosphate (col. 2, lines 12-13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ condensed phosphate as taught by Pierzynski et al. as the preferred dispersant in Ferguson et al., since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the

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intended use ( for reducing the bioavailability of metal contaminants in soil) as a matter of obvious choice. In re Leshin, 125 USPQ 416.

6. **Claim 29-32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson et al. as applied to claims 18,25 above, and further in view of Obrero et al. (4771571).

Ferguson et al. are silent about wherein said at least one dispersant comprises a non-ionic surfactant, an anionic surfactant, a cationic surfactant, or an amphoteric surfactant.

Obrero et al. teach in the same field of endeavor of plant treatment in which Obrero et al. employ a non-ionic surfactant, an anionic surfactant, a cationic surfactant, or an amphoteric surfactant (col. 2, lines 31-39) in order to inhibit the growth of microorganisms and to control microbial spoilage. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a non-ionic surfactant, an anionic surfactant, a cationic surfactant, or an amphoteric surfactant as taught by Obrero et al. in the composition of Ferguson et al. in order to inhibit the growth of microorganisms and to control microbial spoilage.

7. **Claims 33-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson et al. (as above).

For claim 33, Ferguson et al. teach a solubilizer but are silent about at least one solubilizer which increases the solubility of cimmmic acid in an aqueous solution above 0.546 g/L. It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the solubilizer of Ferguson et al. in an amount which will increase the solubility of cimmmic acid in an aqueous solution above 0.546 g/L, since it has been held that where routine testing and general experimental conditions are

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present, discovering the optimum or workable ranges until the desired effect (to make the composition more potent) is achieved involves only routine skill in the art. In re Aller, 105 USPQ 233.

For claims 34-35, Ferguson et al. are silent about the concentration of the cinnamic acid being 25 weight % or less or above 0.546 g/L. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a concentration of the cinnamic acid being 25 weight % or less or above 0.546 g/L in the composition of Ferguson et al., since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable value/ranges for the concentration of cinnamic acid in the composition until the desired effect (to make the composition more potent) is achieved involves only routine skill in the art.

For claims 36-39, Ferguson et al. teach hydroxides (col. 5, lines 5-10).

For claim 40, Ferguson et al. teach a composition comprising cinnamic acid, a solubilizer and an aqueous solvent, wherein the cinnamic acid is dissolved in the aqueous solvent. However, Ferguson et al. are silent about 0.5 to 25 wt.% cinnamic acid, 35 to 300 wt.% of a solubilizer based on the weight of the cinnamic acid, and wherein the cinnamic acid is dissolved in the aqueous solvent in an amount that exceeds the maximum amount of cinnamic acid that can be dissolved in water at room temperature. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have 0.5 to 25 wt.% cinnamic acid, 35 to 300 wt.% of a solubilizer based on the weight of the cinnamic acid in the composition of Ferguson et al., since it has been held that where routine testing and general

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experimental conditions are present, discovering the optimum or workable value/ranges for the concentration of cinnamic acid in the composition until the desired effect (to make the composition more potent) is achieved involves only routine skill in the art. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to dissolve the cinnamic acid in the aqueous solvent in an amount that exceeds the maximum amount of cinnamic acid that can be dissolved in water at room temperature in the composition of Ferguson et al., since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable value/ranges for the concentration of cinnamic acid in the composition until the desired effect is achieved involves only routine skill in the art.

### ***Response to Arguments***

8. Applicant's arguments filed 4/18/06 have been fully considered but they are not persuasive.

**Applicant argued that Ferguson does not anticipate the present claims, because it is directed to compositions for supplying moisture to plants which may optionally contain an addition polymer containing cinnamic acid (in copolymerized form). The copolymerized cinnamic acid of the prior art has lost its identity in the copolymer and is quite distinct from the non-polymerized cinnamic acid of the present claims.**

The claim calls for cinnamic acid with no indication as to whether it is polymerized or non-polymerized cinnamic acid, therefore, Ferguson et al. anticipate in teaching cinnamic acid which can be added to the composition. Optional or not,



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cinnamic acid can be added to the composition, therefore, Ferguson et al. anticipate in the claim language.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

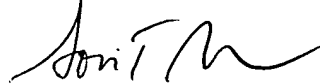
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is 571-272-6889. The examiner can normally be reached on Mon-Thu from 10:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Son T. Nguyen  
Primary Examiner  
Art Unit 3643

stn